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Mark G. Bocchetti
Patent Legal Staff
Eastman Kodak Company
343 State Street
Rochester, NY 14650-2201

EXAMINER

CHOI, HAN S

ART UNIT PAPER NUMBER

2853

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/753,245

Applicant(s)

FELLINGHAM ET AL.

Examiner

Han S. Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24, 26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-23 is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-20 and 24 is/are rejected.
- 7) ☒ Claim(s) 9, 26 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

- The finality of the prior final rejection is hereby withdrawn.

Response to Arguments

1. Applicant's arguments with respect to claims 1 and 16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-8, 10-20, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyers et al (US Pat. 6,463,674).

Meyers et al. discloses a drying system comprising:

Referring to claim 1:

- a plenum [115] of in [Col. 8, Line 52]
- a gas source [116] in fluid communication with the plenum [115] in [Col. 4, Lines 5-7] shown in Fig. 2.
- a gas flow guide [114] in [Col. 4, Lines 7-9] operable to direct gas flow provided by the gas source [116] in [Col. 4, Lines 22-27] shown in Fig. 2.

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- a support [130] having a surface in [Col. 4, Lines 16-18], at least a portion of the surface [40] being heated in Fig. 2, the gas flow guide [114] is positioned to direct gas flow at least partially toward the heated surface [40] of the support [130] in [Col. 5, Lines 31-43] shown in Fig. 2.
- the temperature of the gas flow being cooler than the temperature of the heated surface [40] (Both the gas flow and the heated surface have temperatures. The ambient temperature of the airflow that is initially blown by the fan is cooler than the temperature of the heated surface (the initially blown air flow by the fan becomes warmer as it passes through the heated resistor, therefore heating the surface)) as shown in Fig. 2.
- the heated surface [40] of the support [30] is heated by a heater [110] positioned spaced apart from the support [30] in [Col. 4, Lines 10], the heater [110] being operatively associated with the support [30] through a conductive path operable (air is a heat conductive path) to conduct heat from the heater [110] to the support [30] shown in Fig. 2.

Referring to claim 4:

- a support [30] having a surface [40] wherein the gas flow guide [114] is positioned to create an angle relative to a plane tangential to the surface of the support [30] in [Col. 5, Lines 18-26] as shown in Fig. 2.

Referring to claim 5:

- wherein the angle is approximately 45° shown in Fig. 2. (Myers et al. further specifies that the gas flow guide [114] may be tilted at an angle other than 180°

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with respect to the plane of the surface or path of the recording medium [30] in [Col. 6, Lines 35-36]).

Referring to claim 6:

- a support [30] having a surface [40] and a width dimension in shown in Fig. 2 and a restrictor plate [112] positioned between the gas flow guide [114] and the plenum [115] as shown in Fig. 2, the restrictor plate [112] having at least one perforation (apertures on plate) sized to distribute gas flow over the surface of the support [30] in the width dimension in [Col. 7, Lines 27-29] and [Col. 8, Lines 10-11] where the restrictor plate is the air impingement plate covering the width of the paper.

Referring to claim 7:

- a restrictor plate [112] positioned between the gas flow guide [114] and the plenum [115] shown in Fig. 2, the restrictor plate [112] having at least one perforation (aperture on plate) sized to limit gas flow from the gas flow generated by the gas source [116] to the gas flow guide [114] in [Col. 7, Lines 27-29] as shown in Fig. 2.

Referring to claim 8:

- wherein at least one perforation (aperture on plate) of the restrictor plate [112] forms a pattern of perforations (aperture on plate) through the restrictor plate [112] in [Col. 7, Lines 29-31].

Referring to claim 10:

- the gas source [116] is positioned within the plenum [115] as shown in Fig. 2.

Referring to claim 11:

- the gas flow generator includes a fan [116] in [Col. 4, Lines 6-8] as shown in Fig. 2.

Referring to claim 12:

- The gas source [116] is positioned remotely relative to the plenum [115] and is in fluid communication with the plenum [115] in [Col. 4, Lines 6-8].

Referring to claim 13:

- a cover [107] positioned at least partially about the plenum [115], the cover [107] including a gas inlet [118] and a gas outlet [104] in [Col. 4, Lines 12-15] as shown in Fig. 2.

Referring to claim 15:

- a portion of the surface [30] defining a media travel path in [Col. 5, Line 38-40]. Heating the portions of the surface [40] defining the media travel path in [Col. 5 Lines 31-43]. Directing a gas flow at least partial toward the surface and at least partially along a direction of media travel in as shown in Fig. 3 by the arrows depicting gas flow.

Referring to claims 16 and 17:

- providing a surface [30], a portion of the surface defining a media travel path shown in Fig. 2.
- heating the portion of the surface defining the media travel path, the heated portion of the surface having a temperature (see rejection for claim 1).

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- directing the gas flow at least partially toward the surface [30] includes directing the gas flow to a location of the surface downstream from a location of the surface where heating begins, downstream being relative to the direction of media travel as demonstrated in Fig. 3 where arrows represent gas flow show the direction of gas flow entering the dryer [100] the same direction as the direction of the media [132]. Gas flow arrows from the upper plenum [117] show gas flow being directed away from the heated area towards the exit.
- the temperature of the gas flow being cooler than the temperature of the heated surface [40] (Both the gas flow and the heated surface have temperatures. The ambient temperature of the airflow that is initially blown by the fan is cooler than the temperature of the heated surface (the initially blown air flow by the fan becomes warmer as it passes through the heated resistor, therefore heating the surface)) as shown in Fig. 2.
- heating the portion of the surface [30] defining the media travel path includes conducting heat from a source of heat [110] through a heat conductive extension [114] to the portions of the surface [30] defining the media travel path shown in Fig. 2.

Referring to claim 18:

- gas flow is at an ambient temperature according to Fig. 3 where arrows representing gas flow external the dryer [100] are at a temperature of the make-up air which is at a temperature lower than the heated air in [Col. 5, Lines 65-67] and [Col. 6, Lines 1-3].

Referring to claims 2, 3, 14, 19, 20, and 24:

- the gas flow guide [114] includes fins [154] at an angle and spaced apart from the heated surface [40] shown in Fig. 2.

Allowable Subject Matter

4. Claims 21-23 are allowed.
5. Claims 9, 26, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art references (US Pat. 5,399,039; US Pat. 6,059,406) cited in PTO 892 form show elements that are deemed to be relevant to the present invention. These references should be reviewed.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Han S. Choi whose telephone number is (571) 272-8350. The examiner can normally be reached on Monday - Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HSC
7/31/06



STEPHEN MEIER
SUPERVISORY PATENT EXAMINER